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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,550	09/29/2003	Care Yu	2450-0556P	4279
2292 7590 04/09/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER CZEKAJ, DAVID J	
			ART UNIT	PAPER NUMBER
			2621	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/09/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/09/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/671,550	YU, CARE	
	Examiner	Art Unit	
	Dave Czekaj	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christopher et al. (6792933), (hereinafter referred to as "Christopher") in view of Kaladgew (6252706).

Regarding claim 1, Christopher discloses an apparatus that relates to a drive cone for use in a paintball loader (Christopher: column 1, lines 16-18). This apparatus comprises "a clamp having a hoop and pressing member, the hoop surrounding the loading inlet of the paintgun" (Christopher: figures 1 and 3; column 5, lines 15-19, wherein the clamp has the pressing and hoop members). However, this apparatus lacks the camera and LCD as claimed. Kaladgew teaches that prior art sights cause aiming errors due to distortion of the view through the sight (Kaladgew: column 1, lines 26-29). To help alleviate this problem, Kaladgew discloses an apparatus comprising "an electronic camera coupled to one side of a first member and having an image detector and image processing circuit for capturing a target image and converting the target image into an output signal" (Kaladgew: column 3, lines 35-42, wherein the camera is the video camera) and "a LCD coupled to another side of the member

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displaying the captured image” (Kaladgew: column 3, lines 35-38). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Christopher and add the sight taught by Kaladgew in order to obtain an apparatus that helps minimize aiming errors.

Regarding claim 11, Kaladgew discloses “the image detector is a CCD array” (Kaladgew: column 3, lines 35-42, wherein it is well known that video cameras contain CCD array’s).

Regarding claim 12, although not disclosed, it would have been obvious for the image detector to be a color image detector (Official Notice). Doing so would have been obvious in order to provide a more realistic view to a user.

Regarding claim 13, although not disclosed, it would have been obvious for the image detector to be a grey-scale image detector (Official Notice). Doing so would have been obvious in order to reduce the amount of data transmitted to the screen.

2. Claims 2-4 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christopher et al. (6792933), (hereinafter referred to as “Christopher”) in view of Kaladgew (6252706) in further view of Groess (5675873).

Regarding claim 2, note the examiners rejection for claim 1, and in addition, claim 2 differs from claim 1 in that claim 2 further requires the specifics of the hoop. Groess teaches that clamping rings are used to provide a releasable coupling between components (Groess: column 1, lines 15-17). Groess further discloses a “hoop comprising a first and second member, the first member being a component with a cross-sectional area substantially in the shape of an open ring, the second member

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being pivotally coupled to the first member by a pivotal axis to define a closed ring structure, and eliminate the close ring structure for clamping, the pressing member further comprising a screw bolt" (Groess: figure 2, column 1, lines 19-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the hoop taught by Groess in order to easily hold to components together.

Regarding claim 3, Kaladgew in view of Groess disclose "the first member comprises a first, second, and third side being connected on both ends of the first side, the camera and LCD being disposed on the second and third sides" (Kaladgew: figure 3, column 3, lines 35-42, wherein the camera and LCD are shown to be on different sides; Groess: figure 2, wherein the three sides are shown connected together on both ends of the first side).

Regarding claim 4, Christopher discloses "the first side comprises an arc surface facing one side of the loading inlet, such that the side matches with the shape of the inlet" (Christopher: column 5, lines 15-19. The examiner notes the clamp must be in the shape of the inlet since the clamp attaches the loader to the gun).

Regarding claim 9, Groess discloses "the second member comprises a first hook disposed on another side of the pivotal axis, the first member further comprising a lock assembly for hooking the first hook to define a close ring hoop" (Groess: column 1, lines 19-30, wherein the hook is the clamping ring connector element, which hooks or attaches the rings together).

Regarding claim 10, Groess discloses "the lock assembly comprises a movable member and a second hook on the movable member, the member being maintained at a locked position under normal conditions, and the hooks are hooked when the first hook is pushed towards the second hook" (Groess: figure 2, column 1, lines 19-30, wherein the movable member is the screw, the first and second hooks are the cut-outs or gussets which permit the opening and closing of the ring).

3. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christopher et al. (6792933), (hereinafter referred to as "Christopher") in view of Kaladgew (6252706) in further view of Groess (5675873) in further view of Perrone (2002/0096163).

Regarding claim 5, note the examiners rejection for claim 3, and in addition, claim 5 differs from claim 3 in that claim 5 further requires a bracket. Perrone teaches that prior art bulk loaders jam as they enter the feed tube (Perrone: paragraph 0004). To help alleviate this problem Perrone discloses "the first member comprises a bracket, being a tin elastic component and both ends propping against the second and third sides to clamp the spacer of the pressing member" (Perrone: paragraph 0033, wherein elastic is well known to be used in applications required movement). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the bracket taught by Perrone in order to prevent the feed tube from jamming during game play.

Regarding claim 6, Perrone discloses "the bracket ends prop against a concave opening disposed on the sides" (Perrone: figures 6-8).

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4. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christopher et al. (6792933), (hereinafter referred to as "Christopher") in view of Kaladgew (6252706) in further view of Groess (5675873) in further view of Perrone (2002/0096163) in further view of Elder (6321956).

Regarding claim 7, note the examiners rejection for claim 5, and in addition, claim 7 differs from claim 5 in that claim 7 further requires a slippery resisting pad. Elder teaches that a slippery resisting pad with a high friction side grips the paintball gun in the bracket (Elder: column 6, lines 19-26). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the pad taught by Elder in order to form a high friction bond between the gun and bracket to prevent slipping.

Regarding claim 8, Elder discloses "the slippery pad is rubber" (Elder: column 6, lines 19-26).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US-7040308	05-2006	Ciesium
US-6003504	12-1999	Rice et al.
US-5896850	04-1999	Sullivan Jr.
US-6481432	11-2002	Rushton et al.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Czekaj whose telephone number is (571) 272-7327. The examiner can normally be reached on Mon-Thurs and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DJC


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TC 2600